AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph at page 3, line 1, as follows:

Further, a method in which heating is effected by supplying a heating medium such as steam, hot water or hot oil into a circuit commonly utilized to a cooling medium is disclosed in Japanese Patent Laid-open Publication Gazettes No. 55219/1981, No. 12739/1983, No. 54828/1985, and No. 193223/1997. Furthermore, as an improvement of the above proposals, a method in which heating is effected by using two piping systems of heating medium circuit is disclosed in Japanese Patent Laid-open Publication Gazette No. 100867/1995, a method in which heating medium and cooling medium are independently supplied from respective tanks and recovered to the same is disclosed in Japanese Patent Laid-open Publication Gazette No. 215309/1983; a method in which a piping system is arranged so that a portion of the circuit commonly utilized by the heating medium and cooling medium is made small as far as possible is disclosed in Japanese Patent Laid-open Publication Gazette No. 208918/1987; a method in which a medium is heated [[at]] amid the circuit of the medium only when a mold is to be heated, is disclosed in Japanese Patent Laid-open Publication Gazette No. 269515/1989; and a method in which heating is effected by heated water flowing through a closed loop is disclosed in Japanese Patent Laid-open Publication Gazette No. 37108/1981.

Please amend the paragraph at page 9, line 7, as follows:

FIG. 10 is a diagram illustrative of how ~~channls~~ <u>channels</u> are arranged near the cavity surface; and

Please amend the paragraph at page 9, line 9, as follows:

FIG. 11 is another diagram illustrative of how ~~channls~~ channels are arranged near the cavity surface.

Please amend the paragraph at page 10, line 22, as follows:

According to the arrangement of the present invention, heat insulating layer 5 formed of air is provided between cavity block 2 and mold base 1. Heat insulating layer 5 may be formed of any material other than air having a low thermal conductivity. Owing to heat insulating layer 5, cavity block 2 can be thermally insulated from mold base 1, and hence the mold can be controlled in terms of temperature with a small amount of heat load, with the result that cavity surface 4 of cavity block 2 can be heated or cooled with a quick heat response. Moreover, mold base 1 is provided with circuit B through which a cooling medium is constantly supplied. Circuit B is provided for controlling the temperature of the mold base. Owing to the arrangement of the circuit B, the entire mold can be free from influence of the temperature change of cavity surface 4, with the result that when closing the molding mold, it becomes possible to avoid galling caused by thermal expansion difference between a movable mold half and a ~~atationary~~ stationary mold half. While the above arrangement is made to have heat insulating layer 5, the layer 5 may not be provided depending on the design of the mold. Further, while in the arrangement mold base 1 is divided into the movable mold half and the stationary mold half and each of the mold ~~halfs~~ halves has cavity block 2 and each of cavity blocks 2 has channel A formed therein, channel A may be provided within only one of the cavity blocks.

Please amend the paragraph at page 12, line 2, as follows:

If a molding product has a cubic shape with a side wall surface and a bottom wall surface, and the channel through which the heating medium and the cooling medium are alternately and repeatedly supplied, are arranged as two groups of channels and provided near the cavity surface contacting the side wall surface and the bottom wall surface of the cubic product, respectively, as shown in FIG. 3, it is desirable that distance Pa from the nearest ~~cannnel~~ channel of one ~~cannnel~~ channel group to the nearest ~~cannnel~~ channel of the other ~~cannnel~~ channel group is made smaller than pitch P at which the ~~cannnels~~ channels are arranged in each ~~cannnel~~ channel group. If distance Pa exceeds pitch P, it is preferable to additionally provide a ~~cannnel~~ channel at an intersection or inside of the intersection of the array of the ~~cannnels~~ channels along the bottom wall surface and the array of the ~~cannnels~~ channels along the side wall surface of the cubic cavity. Without channel A2, cavity 3 will suffer from temperature decrease near the corner of cavity 3.

Please amend the paragraph at page 12, line 20, as follows:

FIG. 4 is a diagram schematically showing a cross section of a synthetic resin molding mold having a cavity block in which two arrays of ~~cannnels~~ channels are provided.

Please amend the paragraph at page 12, line 23, as follows:

As shown in the figure, the mold of the present embodiment has two groups of ~~cannnels~~ channels. That is, one of the ~~cannnel~~ channel groups is composed of ~~cannnels~~ channels A through which the heating medium and the cooling medium are alternately and repeatedly supplied, and provided near cavity surface 4 of cavity

block 2. The other of the ~~cannnel~~ channel groups is composed of ~~cannnel~~ channel C through which the cooling medium is constantly supplied, and provided in a portion remote from cavity surface 4. Further, mold base 1 is arranged to have circuit B through which a cooling medium is constantly supplied, and heat insulating layer 5 is provided between cavity block 2 and mold base 1. ~~Cannnel~~ Channel A may be provided at a part of the cavity block near the cavity and ~~cannnel~~ channel C may be provided at a portion corresponding to a portion where ~~cannnels~~ channel A is not provided. In this case, ~~cannnel~~ channel C may be provided over an area wider than the portion corresponding to the portion where ~~cannnel~~ channel A is not provided. Alternatively, ~~cannnel~~ channel C may be provided over the entire area of the cavity block. ~~Cannnel~~ Channel C may not be supplied with a cooling medium or may be held under an atmospheric pressure.

Please amend the paragraph at page 13, line 17, as follows:

As described above, if cavity block 2 is arranged to have ~~cannel~~ channel A through which the heating medium and the cooling medium are alternately and repeatedly supplied, then expansion is caused on cavity block 2, leading to thermal stress within the molding mold, with the result that cavity block 2 and mold base 1 suffer from fatigue. For this reason, it is necessary for cavity block 2 and mold base 1 to be brought into a contiguous relationship with each other, or to be brought into intimate contact with each other by a little thermal stress, during which time a melt resin is injected.

Please amend the paragraph at page 15, line 4, as follows:

As shown in FIG. 7a, first slide core 6 provided on the side of cavity 3 is arranged to have cavity block 2 provided within first slide core 6. Cavity block 2 is arranged to have ~~cannnel~~ channel A through which the heating medium and the cooling medium are alternately and repeatedly supplied, at a portion near cavity surface 4. Heat insulating layer 5 is provided between cavity block 2 and first slide core 6. Further, first slide core 6 is arranged to have circuit B through which a cooling medium is constantly supplied.

Please amend the paragraph at page 16, line 2, as follows:

FIG. 8 is a diagram of a piping system for supplying a heating medium and a cooling medium into a cavity block which is provided within a stationary mold half 11 and a movable mold half 12. As shown in the figure, a heating medium and a cooling medium are alternately and repeatedly supplied to channels which are provided near the cavity surface of the cavity blocks within the stationary mold half 11 and the movable mold half 12. To this end, the piping system includes upstream side switching valves (hereinafter referred to as an inlet switching valve) Sa, Wa, Aa, Sb, Wb, and Ab on the upstream side of a ~~fuid~~ fluid passage inlet. The piping system also includes downstream side switching valves (hereinafter referred to as an outlet switching valve) Ds4, WRa, Ds5, WRb on the downstream side of a ~~fliud~~ fluid passage outlet. The inlet switching valves and the outlet switching valves are preferably disposed at a place distant from the ~~fliud~~ fluid passage inlet and the ~~fliud~~ fluid passage outlet, respectively, by 3m or less. The piping system further includes steam pressure regulating valves Ds6 and Ds7 and medium temperature detecting sensors Tb1 and Tb2 provided near the ~~fliud~~ fluid passage outlet on the upstream side relative to outlet switching valves Ds4, WRa, Ds5, and WRb on the downstream

side. Pressure regulating valves Ds6 and Ds7 are connected at the drain side thereof to a drain ditch. Outlet switching valves Ds4 and Ds5 may be an automatic pressure regulating valve so that they have a pressure regulating function the same as pressure regulating valves Ds6 and Ds7.

Please amend the paragraph at page 17, line 11, as follows:

Pressure regulating valves Ds6 and Ds7 can be adjusted to decrease pressure loss in the fluid passage within the mold so that dispersion of the steam pressure distribution is lessened within the fluid passage and that difference between the cavity surface temperature near the fluid passage inlet and the cavity surface temperature near the ~~fliud~~ fluid passage outlet is lessened. Further, according to the above arrangement, condensed water in the fluid passage within the mold can be drained while the steam pressure within the mold is maintained high. Therefore, the temperature of the saturated steam can be maintained high, the heat conductivity of the steam on the wall of the fluid passage within the mold can be improved, and heating capability is enhanced.

Please amend the paragraph at page 25, line 20, as follows:

Raw material resins molded by the mold according to the present invention may be amorphous polymer resin such as polyvinyl chloride (resin compounds including rigid resin and soft resin, the following materials are the same as above), acrylic ester resin (material containing acrylic acid, methacrylic acid and so on as an acid, and also containing methyl group and ethyl group and so on as an alkyl group), polystyrene (general purpose type, high impact resistant type and so on), acrylonitrile-butadiene-styrene resin, acrylonitrile-butadiene-styrene system resin,

modified polyphenylene oxide, polycarbonate, polysulfone, polyarylate, polyether imide, polyether sulfone and so on, and crystalline polymer such as polyethylene (including low density, linear low density, medium density, high density and so on), polypropylene (such as homopolymer, random polymer, block polymer and so on), polybutene-1, polymethylpentene-1, polyfluorocarbon (polyvinylidene fluoride and so on), polyoxymethylene, polyamide (6, 66 and so on), terephthalic acid ester resin (polyethylene ~~terephthate~~ terephthalate, polybutylene terephthalate and so on), polyphenylene sulfide, polyether ether ketone, polyether ketone, polyimide and so on, liquid crystal polymer (aromatic polyester, aromatic polyester amide and so on), thermosetting resin such as epoxy resin, melamine resin, phenolic resin, urea resin, unsaturated polyester resin, polyurethane, silicone resin, alkyd resin, and alloys or filler (particle filler such as talc and so on or fiber material such as glass fiber and so on), and compounds of the above resins.